DETERMINANTS OF FAMILY PLANNING UNMET NEEDS IN WEST JAVA AND POLICY RECOMMENDATIONS DURING THE COVID-19 PANDEMIC (BASED ON ADVANCED ANALYSIS OF 2019 SKAP DATA)

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Abstract. The Unmet Need for Family Planning (KB) in 2019 is still far from the 2015-2019 Strategic Plan target set at 9.91 percent. Seventeen provinces have a percentage of Unmet Need KB above the national figure (14.4 percent). One of them is WestJava Province, with a percentage of Unmet Need of 14.8%. Provinces with a high number ofUnmet Needs require the attention of policymakers, especially in the COVID-19 pandemic. West Java is the high-risk red zone category of COVID-19. Increased public awareness of the transmission of Covid-19 is an additional constraint to reducing the Unmet Need for family planning in the community. Therefore, it is necessary to analyze the determinants of Unmet Need as a basis for formulating policies on family planning services appropriate to be applied during the COVID-19 pandemic. This research used mixed methods with SKAP 2019 data as secondary data to identify determinants of Unmet Need for Family Planning in West Java, and primary data in the formof in-depth interviews with family planning service stakeholders to explore the implementation of family planning services in West Java, including the COVID-19 pandemicsituation. Furthermore, multinomial logistic regression using in the data analysis. The results showed that the variables that had a statistically significant effect on Unmet Need Spacing were age (OR = 0.485) and never visits health facilities (OR = 1.616). While thevariables that have a significant effect on Unmet Need Limiting are the variable age (OR = 7.101), the number of living children more than 3 (OR = 1.466), rural residence (OR = 0.528),and the median wealth index (OR = 1.536).

Keywords: Unmet Need, Determinants, SKAP 2019, COVID-19

INTRODUCTION

World Population Prospect 2019 Population Department of the United Nations Social and Economic Affairs Division reports that the world population will reach 7.7 billion in mid- 2019 and is estimated to reach 8.5 billion in 2030, 9.7 billion in 2050, and 10.9 billion by 2100.[1] The 2015-2019 RPJMN lists Population Development and Family Planning targets, namely a decrease in the Total Fertility Rate (TFR), increasing use of Modern contraceptives, decreasing Unmet Needs for family planning, increasing long-term use of contraceptive methods, and declining contraceptive use rates. However, in 2019 Indonesia's TFR of 2.45 children per woman has not reached the target, 2.28 children per woman.[2]

The 2015 Inter-Census Population Survey reports that the Maternal Mortality Rate in Indonesia reaches 305/100,000 population, while the 2030 Sustainable Development Goals (SDGs) target is 70/100,000 population. [3] Presidential Regulation No. 18/2020 concerning the National Medium-Term Development Plan (RPJMN) 2020-2024 explains that the reduction of MMR to be a strategic priority project, which is achieved through strategies to improve maternally, child, family planning, and reproductive health.[4]

The national target for using modern contraceptives in the 2015-2019 Strategic Plan is 61.3 percent. Indonesia has not achieved the target because modern contraceptive users in 2019 amounted to 55 percent.[2] The achievement of contraceptive use has

not been maximized. One of the reasons is that the Unmet Need for family planning has not been fully resolved. Unmet Need for family planning is a condition with a desire to avoid or delay birth without using a contraceptive method. [5]

The 2019 KKBPK Program Performance and Accountability Survey (SKAP) stated that the Unmet Need for KB Indonesia, which is 14.4 percent, is still far from the 2015-2019 Strategic Plan target of 9.91 percent. Seventeen provinces have a percentage of Unmet Need above the national figure, West Java Province. [2]The West Java Unmet Need Trend tends to be above the national figure. In 2016, West Java's Unmet Need figure was 14.9% (RPJMN KKB-PK Performance Indicator Survey). Although the number decreased in 2017 to 11% (2017 IDHS), consecutively in 2018 and 2019, it increased again to 12.7% and 14.8%. [2]

The Covid-19 pandemic in 2020 caused by the SARS-CoV-2 virus poses new challenges with the significant increase in the number of cases and deaths.[6] By November 28, 2020, there were 527,999 positive cases, 441,983 recoveries, and 16,646 deaths due to Covid-19 in Indonesia. [7] West Java Province is a red zone, whereby on November 29, 2020, 51,548 people were confirmed positive, 43,576 recovered, and 892 people died.[8]

The United Nations Population Fund (UNFPA) projects 47 million women who cannot access modern contraception in 114 low- and middle-income countries. If the regional quarantine lasts for six months, 7 million unwanted pregnancies will disrupt health services. Every three months of regional quarantine, there will be an increase of 2 million women who cannot use modern contraceptives. [9]

Taufiqoh (2014) found that the number of children still alive, age, education, visits to health facilities, Gross Regional Domestic Product, and the interaction between wealth index and access significantly affect the unmet need for birth spacing. Meanwhile, family planning needs that are not meeting birth restrictions are significantly influenced by the number of living children, age, area of residence, visits to health facilities, the interaction between the wealth index and access.[10]

Based on the description above, it is essential to conduct a study to analyze the determinants of unmet need as the basis for family planning service policies in the Covid-19 pandemic era.

METHODS

This study used mixed methods with both primary and secondary data analysis. The primary data were obtained from in-depth interviews with family planning service stakeholders to explore the implementation of family planning services in West Java, including the Covid-19 pandemic conditions. The secondary data were from 2019 SKAP, analyzed to determine the determinants of Family Planning Unmet Need in West Java.

Quantitative Method

The population of this study was all women of childbearing age in 2019 aged 15-49 years in West Java Province who were selected as the 2019 SKAP research sample, totaling 2804 people. At the same time, the research sample were women of childbearing age who met the criteria of being married or living with a partner and already having children. After going through filtering data, cleaning, recoding, compute, the number of research samples was 1,921 respondents.

The data were analyzed through descriptive statistics and inferential analysis using the Multinomial logistic regression using SPSS 20. The dependent variable was the statusof Unmet Need, consisting of three categories. Unmet Need Spacing, Unmet Need Limiting, and Met Need (active FP participants, infertile women, women whose pregnancies are wanted, and women who are not on birth control and want to have children soon). Meanwhile, the independent variables consisted of age, the number of children still alive, residence, education, employment status, wealth index, visits to family planning officers, visits to health facilities, mass media information.

Qualitative Method

The qualitative data collection was carry in November 2020 through in-depth online interviews with official informants at West Java BKKBN Representatives, West Java PLKB, Community Health Center (Puskesmas) Midwives/Independent Practical Midwives (BPM) in West Java Province. The research instruments were interview guidelines and results recording sheets. The instrument passed the FKM UI Ethics Commission test Number: Ket-595/UN2.F10.D11/PPM.00.02/2020.

RESULTS

Descriptive Statistics Analysis

Table 1. The percentage distribution of married women aged 15-49 years according to the Family Planning Unmet Need Status, demographic

characteristics, socio-economy, and family planning services, SKAP 2019 West Java Province

Characteristics	N	%
Unmet Need Status		
Met Need	1564	81,4
Unmet Need Spacing	81	4,2
Unmet Need Limiting	276	14,4
Age		
Younger (15-29 years old)	441	23
Older (30-49 years old)	1480	77
Living Children		
1-2 children	1337	69,6
≥ 3 children	584	30,4
Domicile		
Country	650	33,8
City	1271	66,2
Education		
Low Education	710	37
Higher Education	1211	63
Employment Status		
Unemployed	1456	75,8
Employed	465	24,2
Wealth Index		
Low	371	19,3
Middle	1087	56,6
High	463	24,1
Family Planning Officer Visits		
Never	1564	81,4
Ever	357	18,6
Health Facility Visits		
Never	603	31,4
Ever	1318	68,6
Mass Media Information		
Non-exposed	132	6,9
Exposed	1789	93,1
TOTAL	1921	100

Source: Processed from SKAP 2019 West Java

Based on the status of family planning needs, most (86.4%) of the married women aged between 15-49 in West Java were included in the met need group. Meanwhile, those who entered the Unmet Need Spacing and Unmet Need Limiting groups were 4.2% and 14.4%, respectively. Most of the women are in the old age category (77%), have 1-2 children (69.6%), live in urban areas (66.2%), have higher education (63%), do not work (75.8%), have a medium wealth index (56.6%), have never received a visit from a family planning officer (81.4%), have visited a health facility (68.6%), and were exposed to information about family planning from mass media (93.1%).

Multinomial Logistic Regression Analysis

1. Goodness of Fit Test

Table 2. Goodness of Fit Test

	Chi Square	df	sig
Pearson	535,828	566	0,814
Deviance	393,998	566	1,000

The goodness of fit test showed a Pearson value of 0.814 ($p \geq 0.05$) explaining that the model was fit or suitable.

Table 3. Goodness of Fit Test

	Pseudo R-Square
Cox and Snell	0,072
Nagelkerke	0,105
McFadden	0,065

Nagelkerke's value of 0.105 explains that the diversity of independent variable data is able to explain the diversity of the dependent variable's data by 10.5% while the rest is explained by other independent variables outside the model.

2. Parameter Significance Test

a. Simultaneous Test

Table 4. Simultaneous Significance Test of Parameters

	Model Fitting Criteria	Likelihood Ratio Test		
	-2 Log Likelihood	Chi Square	df	sig.
Intercept Only	872,560			
Final	728,580	143,980	20	0,000

The p-value is 0.000 ($p < \alpha$), meaning that with a significance level of 5%, there is sufficient evidence to state that there is at least one independent variable that is statistically significant in influencing the dependent variable.

b. Partial Test

Table 5. Partial Significance Test of Parameters

	Model Fitting Criteria	Likelihood Ratio Test		
	-2 Log Likelihood	Chi Square	df	sig.
Intercept	728,580[a]	0,000	0	.
Age	802,432	73,852	2	0,000
Number of living children	738,808	10,228	2	0,006
Domicile	746,169	17,589	2	0,000
Education Level	730,123	1,543	2	0,462
Employment Status	729,647	1,067	2	0,586
Wealth Index	735,721	7,141	4	0,129
Officer Visits	730,220	1,640	2	0,440
Health Facility Visits	732,430	3,850	2	0,146
Media Information	729,162	0,582	2	0,747

Partial test shows the variable age, the number of living children, and domicile has a p value less than 0.05. This means that these variables have a statistically significant effect on the variable unmet need status. Meanwhile, other variables show a relationship that is not statistically significant.

Table.6 Estimated parameters, significance, and trend ratio of multinomial logit probability Family Planning Unmet Need, SKAP 2019 West Java Province

Factors	*Unmet Need Spacing* Formula			*Unmet Need Limiting* Formula		
	B	Sig.	OR	B	Sig.	OR
Intercept	-2,628	0,000		-3,998	0,000	
Age						
Older Age	-0,723	0,004	0,485	1,960	0,000	7,101
Younger Age	-	-	1	-	-	1
Living Children						
≥ 3	-0,445	**0,164**	0,641	0,383	0,006	1,466
1-2	-	-	1	-	-	1
Domicile						
Country	-0,356	**0,183**	0,700	-0,638	0,000	0,528
City	-	-	1	-	-	1
Wealth Index						
Low	0,238	**0,512**	1,269	0,266	**0,234**	1,305
Middle	0,026	**0,929**	1,026	0,429	0,013	1,536
High	-	-	1	-	-	1
Health Facility Visits						
Never	0,480	0,046	1,616	0,186	**0,449**	1,204
Ever	-	-	1	-	-	1

Note: - = reference category

Thus, that the multinomial logistic regression model is formed as follows:

1. *Unmet Need Spacing* Multinomial Logistic Regression Model

$$PY1 = \frac{-2{,}628 - 0{,}723U + 0{,}480KFK}{1 + e - 2{,}628 - 0{,}723U + 0{,}480KFK + e - 3{,}998 + 1{,}960U + 0{,}383AMH - 0{,}638TT + 0{,}429IK}$$

2. *Unmet Need Limiting* Multinomial Logistic Regression Model

$$PY2 = \frac{-3{,}998 + 1{,}960U + 0{,}383AMH - 0{,}638TT + 0{,}429IK}{1 + e - 2{,}628 - 0{,}723U + 0{,}480KFK + e - 3{,}998 + 1{,}960U + 0{,}383AMH - 0{,}638TT + 0{,}429IK}$$

3. *Met Need* Multinomial Logistic Regression Model

$$PY0 = \frac{1}{1 + e - 2{,}628 - 0{,}723U + 0{,}480KFK + e - 3{,}998 + 1{,}960U + 0{,}383AMH - 0{,}638TT + 0{,}429IK}$$

Information:
PY1 : Probability of Unmet Need spacing
PY2 : Probability of Unmet Need limiting
PY0 : Probability of Met Need (as reference)
U : Age
AMH : The number of living children
TT : Residence
KFK : Visit to Health Facilities

DISCUSSION

High Unmet Need Rate

Unmet Need for Family Planning in the 2019 SKAP is married women of reproductiveage 15-49 years who did not use contraception during the survey. They wanted children later (delayed more than 24 months), did not want more children, or were pregnant with unwanted or wanted pregnancies (within two years or more). It also included women with PUS who stated the main reasons for not having family planning were one or more of the following: infrequent get together, their husbands/family/other people against family planning, religious and cultural prohibitions, health reasons, side effects, lack of access/distance to the place of family planning services, unavailable FP methods or tools, unavailable provider, expensive family planning fees, and discomfort. [2]

The results showed that Unmet Need Spacing in West Java in 2019 was 18.6%, with Unmet Need Spacing at 4.2% and Unmet Need Limiting at 14.4%. The figure is above the National, which is equal to 14.4%. The number of unmet needs in this study is higher than the figure in the 2019 SKAP result, presumably because this study did not include married women who did not have children (number of living children = 0) as respondents.

The informant from West Java BKKBN deputy official stated that the number of Family Planning Unmet Needs was stagnant at 11-14% annually. There is also a recording problem that often causes differences in the results of the PLKB manual reports every month with the survey results each year, resulting in incorrect numbers and sometimes even quite a difference. It is suspected that there is a difference in the understanding of the Unmet Need KB definition from the PLKB and the Unmet Need KB definition, which is the basis of the survey.

Factors Influencing the High Unmet Need Rate

Various factors influence Family Planning Unmet Need. Multinomial Logistic Regression analysis shows that the tendency of older marriage-age women (30-49 years) to experience unmet need spacing is 0.485 times greater than younger women (15-29). Meanwhile, the tendency of unmet need limiting was 7,101 times more significant in older women than younger women of marriage age. As the mother's age increases, the possibility of unmet family planning needs also increases significantly, especially for women of advanced reproductive age, 35 years or older. [11] Age still plays an essential role in the high Unmet Need for family planning in West Java. Moreover, there is an opinion in the community that around 30 years is not fertile, even though the woman is not yet menopausal.

The tendency with more than three living children to experience unmet need limiting compared to met need was 1.466 times greater than those women with 1-2 living children. Solanke (2019) also finds an increase in the chance of Unmet Need in women who have five or more living children compared to women who have fewer than or equal to four.[11]

Women of marriage age who live in rural areas tend to experience unmet need, limiting 0.528 times higher than those living in urban locations. Woldemicael & Beaujot (2011) find that women living in urban and central areas (capital cities) have a relatively higher prevalence of contraceptive use.[12]

The tendency of women with medium wealth index to experience Unmet Need Limiting compared to

met need was 1.536 times greater than WUS, who had a high wealth index. Economic inability leaves women with few options. [10] This result can be exacerbated by the Covid 19 pandemic, which health and social systems around the world are struggling to cope with. The current situation is very challenging in a humanitarian aspect, in the context of a fragile and low-income country, where the health and social systems are already weak. So that sexual services and reproductive health risks are ignored. [9]

Women of marriage age who had never visited a health facility in the last 12 months tended to experience Unmet Need Spacing compared to the met need, which was 1.616 times higher than those who had visited a health facility. Women who visit health facilities have more opportunities to get counseling and information about family planning.[12]

Other Factors Influencing the high Unmet Need

In the parameter estimation table, the variables of education, work status, visits by family planning officers, and mass media information do not significantly influence because they have a p value> 0.05. However, this does not mean that these variables can be ignored. The results of this study are in line with Usman (2013), with a p value> 0.05 for the education variable. It may be influenced by the development of information technology, where most WUSs have cellphones, making it easier for WUS to get information about family planning. Even though they fall into the low education category, they are aware of the need for family planning. [13]

Working women experience fewer Unmet Need for pregnancy spacing incidents, while unmet need for birth control is less common among women who do not work.[14] The Covid pandemic with the massive scale social restriction (PSBB) policy forces many people to work from home, increasing the risk of Unmet Need Spacing.

Univariate analysis shows that in 2019, before the Covid-19 pandemic, 81.4% of respondents said they had never received a visit from a family planning officer during the last 12 months. The informant stated that PLKB set a priority scale for home visits, namely women with high risk and before and after the installation of contraceptives. The pandemic situation makes the visits of officers even more constrained because home visits are risky.

Apart from the factors that were the variables in this study, there were also various reasons for not having a family planning agreement found from the interview, including the absence of husband's support, incorrect knowledge of family planning, religion, culture, and concerns about the side effects of contraception.

Efforts to Reduce Family Planning Unmet Needs during the Covid Pandemic

In-depth interviews with West Java BKKBN Representative Officers, PLKB, and West Java Community Health Center/BPM Midwives obtained an illustration of a decrease in visits to health facilities during the pandemic period. It affects family planning services. Efforts to reduce Unmet Need including during the Covid 19 pandemic, are summarized as follows:

1. Midwives and PLKB use social media in conducting IEC related to family planning services. Family planning visits are scheduled through the WhatsApp app to address community concerns in visiting health facilities.

2. Prioritizing home visits for women who have a high risk, before and after the installation of long-term contraceptive methods only, because according to the informant, the number of PLKB is small, which should be 1 PLKB for two villages, currently 1: 4 is even up to 1:6 in West Java.

3. Optimize Family Planning services post-delivery.

4. Sufficient supplies of free contraceptives and distributed, especially condoms and pills. BPM also gets contraceptives from the BKKBN.

5. Family Planning officers are granted permission to provide condoms and birth control pills to the community. It is beneficial because, during the pandemic, midwives received additional tasks in handling Covid-19.

6. Cooperate with religious organizations to provide counseling and services on family planning, such as Fatayat NU, Muslimat, Aisiyah.

The Covid-19 pandemic provides us with an opportunity to rethink the policies and efforts we are currently taking. We must ensure that we provide genuinely appropriate and fair. Care to all women at every opportunity. Effective contraception worldwide will result in a healthier future for the community. [15] In line with efforts to achieve the 2020- 2024 RPJMN target related to reducing MMR and IMR through improving maternal, child, family planning, and reproductive health.

Family planning services must still get serious attention from all parties despite the challenges. Using new methods that can be applied during the Covid-19 pandemic and cross-sectoral cooperation is, of course, very much needed to create family planning services that comply with standards even during the Covid-19 pandemic.

CONCLUSION

1. The number of Family Planning Unmet Needs in West Java Province tends to be stagnant at 11-14% (data for 2016-2019)
2. Variables that have a statistically significant effect on Unmet Need Spacing are old age (OR = 0.485) and never visits health facilities (OR = 1.616). While the variables that have a significant effect on Unmet Need Limiting are old age (OR = 7.101), the number of living children more than 3 (OR = 1.466), rural residence (OR = 0.528), and the median wealth index (OR = 1.536). The most dominant factor influencing the Unmet Need status is age.
3. There have been various efforts made by Midwives, PLKB, and West Java BKKBN in suppressing the number of Unmet Need for Family Planning in West Java during the Covid pandemic. Including the use of social media, increasing post-copy family planning, and cross-sectoral cooperation in providing family planning services.

RECOMMENDATION

1. Prioritizing on approaching older women of marriage age, with more than three livingchildren, living in rural areas, low wealth index, and never visited a health facility.
2. Optimize education during home visits and refine the targets and priorities of WUS who receive home visits.
3. Increase the number of Family planning officers in West Java Province so that there is no unbalanced comparison between officers and target villages.
4. Increasing cooperation between midwives, family planning officers, and cadres provides complete education and counseling related to family planning and reproductive health through mass media or personal contact with family planning service officers (officers, midwives, and doctors).
5. Research to review the effectiveness of the mass media, which informs about family planning.
6. Improve Post Delivery Family Planning services.
7. Provide training related to the recording of Unmet Needs for Family Planning service providers, primarily related to the definition of Unmet Need. As well as CTU training, Post-Delivery Family Planning, and the use of ABPK (Decision Skills Aids) for Midwives in West Java Province.

ACKNOWLEDGEMENT

This research is supported by the National Population and Family Planning Board (BKKBN) through the 2020 Population, Family Planning, and Family Development Partnership Research Program. The author would like to thank Mr. Ir. Anwar Fachry, Msc from P2KP University of Mataram, for the support and direction in this research and all informantsand all parties involved in the research process.

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